

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Implementation of Section 304 of the)	CS Docket No. 97-80
Telecommunications Act of 1996)	
)	
Commercial Availability of Navigation)	
Devices)	
)	
Compatibility Between Cable Systems)	PP Docket No. 00-67
and Consumer Electronics Equipment)	



Comments

I. INTRODUCTION

On behalf of the independent, small cable sector, the American Cable Association (“ACA”) has consistently supported the Commission’s efforts to advance the DTV transition, and ACA will continue to do so. ACA members are on point in delivering advanced services, like cable modem service and digital cable service, to smaller markets. Several ACA member systems already deliver broadcaster’s DTV signals in smaller markets. Many more ACA members are actively exploring how to deliver HDTV signals in their markets.

At the same time, the Commission must proceed with care when promulgating DTV regulations that will affect smaller cable systems. When it comes to cable regulation, one size does not fit all. DTV regulations that impose disproportionate

compliance burdens and costs on smaller cable systems will stall the progress ACA members are making, with the unintended consequence of actually slowing the DTV transition in smaller markets.

In that vein, the proposed plug-and-play regulations raise three principal questions for small cable:

- What are the costs of compliance for smaller cable systems?
- How will plug-and-play requirements affect Comcast's Headend-in-the-Sky ("HITS"), the main source of digital cable services for smaller cable systems?
- Why are some of the plug-and-play regulations only limited to systems that have 750 MHz capacity or greater, while other regulations apply to all digital cable systems, even those operated by smaller cable operators?

ACA's research has so far turned up no solid answers to these questions. To ensure that the plug-and-play regulations accommodate the special circumstances and limitations of smaller cable systems, the Commission should resolve these questions in this rulemaking, clarify the capacity threshold, and adopt a low-cost waiver process for those smaller systems that need additional time to comply.

The American Cable Association. ACA represents more than 1,000 independent cable companies that serve about 7.5 million cable subscribers, primarily in smaller markets and rural areas. ACA member systems are located in all 50 states and in virtually every congressional district. The companies range from family-run cable businesses serving a single town to multiple system operators with small systems that focus on small markets. About half of ACA's members serve fewer than 1,000

subscribers. All ACA members face the challenges of developing and operating broadband networks in lower density markets, including the challenges of the DTV transition.

II. ANALYSIS

In assessing how the plug-and-play regulations could affect the small cable sector, the Commission must examine three questions:

- What are the costs of compliance for smaller cable systems?
- How will plug-and-play requirements affect HITS, the main source of digital cable services for smaller cable systems?
- Why are some of the plug-and-play regulations only limited to systems having 750 MHz capacity or greater, while other regulations apply to all digital cable systems, even those operated by smaller cable operators?

ACA has consulted several representatives of organizations participating in the plug-and-play accord, equipment manufacturers and distributors, and ACA members with engineering and technology expertise. No definitive answers emerged from this research.

To avoid adopting plug-and-play regulations that adversely affect small cable and the DTV transition in smaller markets, the Commission will need to help answer these questions.

A. The Commission must evaluate the burdens and costs of plug-and-play regulations on smaller cable systems and include a small system exemption or a waiver process in the final regulations.

The proposed plug-and-play regulations will impose compliance costs on each cable system that falls within the scope of those regulations. At a minimum, compliance costs will include: (i) modification of each headend; and (ii) stocking and replacement of additional set-top boxes.

Modification of each headend, through additional equipment and software changes. To accommodate the proposed digital encoding standards, cable operators will need to modify or replace signal processors and other headend equipment. For each headend, this will impose a finite cost for equipment and labor. To date, ACA has not been able to obtain even a ballpark estimate for the necessary headend upgrades.

This presents an acute concern for ACA members because of the much higher per subscriber cost when upgrading small headends. For example, if the cost of the necessary plug-and-play headend upgrades fell in the \$10,000 range, this would present a negligible per subscriber cost for a typical MSO cable system with 50,000 subscribers (\$0.20/subscriber). On the other hand, for a small cable system with 2,500 subscribers, the cost would increase 20-fold to \$4.00/subscriber. For a 1,000-subscriber cable system, such upgrades would cost \$10 per subscriber. Nearly half of ACA's members serve fewer than 1,000 subscribers.

At this point, we cannot determine the costs of bringing a headend into compliance with the plug-and-play regulations. We will need the Commission's help and the help of the MOU participants. At the same time, the Commission can readily determine the need for relief from this level of compliance obligations for small systems.

Within the past year, the Enforcement Bureau has granted temporary EAS waivers for nearly 2,000 small cable systems due to the financial hardship of installing EAS equipment in each small headend. That equipment would cost between \$7,500 and \$10,000 per headend. If the plug-and-play regulations impose an equal or greater compliance burden, the Commission's EAS waiver orders show that many small cable systems will be unable to comply.

Stocking and replacement of additional set-top boxes. To comply with the proposed plug-and-play regulations, cable operators must purchase and stock additional digital set-top boxes – by far the single most costly piece of customer premises equipment. By the end of this year, the plug-and-play proposal would require cable operators, upon request of a customer, to replace any leased high definition set-top box without an IEEE 1394 interface technology. Effective July 1, 2005, set-top boxes must include both DVI or HDMI interface technology and 1394 technology. As a result, cable operators subject to these regulations must first maintain two different set-top boxes in inventory and then change out their entire inventory of digital set-top boxes.

With digital set-top boxes ranging between \$250 and \$450, the burdens of this requirement on smaller systems becomes readily apparent. If a 2,500-subscriber cable system offering digital cable services were forced to replace even 50 set-top boxes, the costs could exceed \$22,000. Again, the Commission's EAS waiver dockets contain ample evidence of the financial hardship this level of compliance cost would impose on smaller cable systems.

B. The Commission should evaluate the impact of plug-and-play regulations on HITS, the main source of digital cable services for small cable operators.

Comcast-owned Headend-in-the-Sky is the main source of digital cable services for small cable systems. As explained in ACA's comments in the AT&T/Comcast merger, the continued availability of HITS is essential to delivering expanded channel offerings to hundreds of thousands of rural consumers.¹ In essence, HITS enables smaller cable systems to receive digitally compressed programming via satellite and, in conjunction with HITS-compatible set-top boxes, expand system channel capacity without a full-scale system upgrade.² HITS has provided a much-needed solution for smaller market cable operators, and, without HITS, many small systems would be unable to expand channel line-ups to meet consumer demand and to compete with DBS.

The question then becomes: How will plug-and-play affect HITS services? Will HITS need to modify its transmission technology? Will small cable operators distributing HITS be required to retrofit headends and purchase new set-top boxes? What are the per-headend and per-subscriber costs of these changes?

ACA's research to date results in a consistent answer: No one knows. To fully assess the impact of plug-and-play on small cable systems, and to fashion rules that appropriately ameliorate any adverse impact, the Commission needs to help obtain answers to these questions.

¹ *In the Matter of Applications for Consent to the Transfer of Control of Licenses from Comcast Corporation and AT&T Corp. to AT&T Comcast Corp.*, MB Docket No. 02-70, Comments of ACA (filed Apr. 29, 2002) and Reply Comments of ACA (file May 21, 2002).

² See www.hits.com.

C. The Commission should clarify that the plug-and-play obligations apply to cable systems upgraded to 750 MHz capacity or greater.

The proposed regulations contain an ambiguity that the Commission should resolve in its final rules. The scope of the plug-and-play regulations are expressly limited to digital cable systems upgraded to 750 MHz capacity or greater.³ Other requirements, particularly POD-Host interface obligations, appear to apply to all digital cable systems, regardless of size or capacity.⁴ The apparent expanded scope of the proposed regulations would significantly increase the potential for disparate impact on smaller systems.

ACA has previously reported to the Commission that only about 25% of ACA members have upgraded systems to 750 MHz.⁵ Most of these systems are operated by ACA's larger members, companies that may be better positioned to comply with the full range of the plug-and-play regulations. At the same time, ACA estimates that more than 90% of ACA member systems have launched or plan to launch digital cable services. This group includes some of ACA's smallest members. Because of technology like HITS, many systems that serve less than 2,000 subscribers have launched digital services. The small companies owning and operating these systems are in a much worse position to bear the administrative burdens and capital costs of complying with plug-and-play regulations.

To address this concern, the Commission should limit the scope of all the plug-and-play regulations to digital cable systems with an activated channel capacity of 750

³ *In the Matter of the Compatibility Between Cable Systems and Consumer Electronic Equipment*, Further Notice of Proposed Rulemaking, FCC 03-3, PP Docket No. 00-67 (rel. Jan. 10, 2003) at ¶ 3.

⁴ *Id.*

MHz or greater, or at a minimum, include a longer phase-in for systems under this threshold. ACA can discern no basis for objections by the MOU participants for this adjustment to the proposed regulations.

III. CONCLUSION

ACA's principal concerns with the plug-and-play proposal involve three questions:

- What are the costs of compliance for smaller cable systems?
- How will plug-and-play requirements affect HITS, the main source of digital cable services for smaller cable systems?
- Why are some of the plug-and-play regulations limited only to systems having 750 MHz capacity or greater, while other regulations apply to all digital cable systems, even those operated by smaller cable operators?

To assess thoroughly the impact of the proposed regulations on small cable businesses, the Commission will need to help answer these questions before adopting final rules.

Where the answers point toward disparate costs and burdens for small cable systems, the Commission should include in its final regulations a streamlined waiver process and an extended phase-in for small system compliance.

The Commission should also limit the scope of all the plug-and-play regulations to 750 MHz digital cable systems. Many very small cable systems now offer digital services, but imposing additional compliance obligations and costs on those systems will threaten the progress they have made in rolling out digital services.

⁵ *In the Matter of Carriage of Digital Television Broadcast Signals*, CS Docket No. 98-120, Reply Comments of ACA (filed Aug. 16, 2001) at 4.

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